

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A circuit connecting material for connection of
a first circuit member having a plurality of first circuit electrodes formed on the
main surface of a first circuit board and
a second circuit member having a plurality of second circuit electrodes formed
on the main surface of a second circuit board,

with said first and second circuit electrodes opposing each other,
_____the circuit connecting material comprising:
_____an adhesive composition, and
_____covered particles comprising conductive particles with portions of their
surfaces covered by insulating fine particles, remaining portions of surfaces of the
conductive particles not being covered by the insulating fine particles,

wherein the mass of said insulating fine particles constitutes 2/1000 to
26/1000 of the mass of said conductive particles.

2. (Currently amended) A circuit connecting material for connection of
a first circuit member having a plurality of first circuit electrodes formed on the
main surface of a first circuit board and
a second circuit member having a plurality of second circuit electrodes formed
on the main surface of a second circuit board,

with said first and second circuit electrodes opposing each other,
_____the circuit connecting material comprising:

_____an adhesive composition, and
_____covered particles comprising conductive particles with portions of their
surfaces covered by insulating fine particles, remaining portions of surfaces of the
conductive particles not being covered by the insulating fine particles,

wherein said conductive particles have nuclei comprising a polymer, and
the mass of said insulating fine particles constitutes 7/1000 to 86/1000 of the
mass of said nuclei.

3. (Currently amended) A circuit connecting material for connection of
a first circuit member having a plurality of first circuit electrodes formed on the
main surface of a first circuit board and
a second circuit member having a plurality of second circuit electrodes formed
on the main surface of a second circuit board,

with said first and second circuit electrodes opposing each other,
_____the circuit connecting material comprising:
_____an adhesive composition, and
_____covered particles comprising conductive particles with portions of their
surfaces covered by insulating fine particles, remaining portions of surfaces of the
conductive particles not being covered by the insulating fine particles,

wherein the specific gravity of said covered particles is 97/100 to 99/100 of
the specific gravity of said conductive particles.

4. (Currently amended) A circuit connecting material according to
claim 1, wherein in said covered particles, 5 to 60% of the surfaces of said

conductive particles are covered by said insulating fine particles, the remaining portions of the conductive particles not being covered by the insulating fine particles.

5. (Previously presented) A circuit connecting material according to claim 1, wherein the mean particle size of said insulating fine particles is 1/40 to 1/10 of the mean particle size of said conductive particles.

6. (Previously presented) A circuit connecting material according to claim 1, wherein said insulating fine particles comprise a polymer of a radical polymerizing substance.

7. (Previously presented) A circuit connecting material according to claim 1, wherein said adhesive composition comprises a radical polymerizing substance and a curing agent which generates free radicals in response to heating.

8. (Previously presented) A circuit connecting material according to claim 1, which further comprises a film-forming material comprising a phenoxy resin.

9. (Original) A circuit connecting material according to claim 8, wherein said phenoxy resin has a molecular structure derived from a polycyclic aromatic compound in the molecule.

10. (Original) A circuit connecting material according to claim 9, wherein said polycyclic aromatic compound is fluorene.

11. (Previously presented) A circuit connecting material film comprising a circuit connecting material according to claim 1 formed into a film.

12. (Previously presented) A circuit member connection structure provided with

a first circuit member having a plurality of first circuit electrodes formed on the main surface of a first circuit board,

a second circuit member having a plurality of second circuit electrodes formed on the main surface of a second circuit board,

and a circuit connecting member situated between the main surface of said first circuit board and the main surface of said second circuit board, and connecting said first and second circuit members together with said first and second circuit electrodes opposing each other,

wherein said circuit connecting member comprises a cured circuit connecting material according to claim 1,

and said first circuit electrodes and said second circuit electrodes are electrically connected through said covered particles.

13. (Original) A circuit member connection structure according to claim 12, wherein, when a direct current voltage of 50 V is applied between adjacent circuit electrodes, the resistance value between said adjacent circuit electrodes is $10^9 \Omega$ or greater.

14. (Previously presented) A circuit member connection structure according to claim 12, wherein at least one of said first and second circuit members is an IC chip.

15. (Previously presented) A circuit member connection structure according to claim 12, wherein the connection resistance between said first circuit electrodes and said second circuit electrodes is no greater than 1 Ω .

16. (Previously presented) A circuit member connection structure according to claim 12, wherein at least one of said first and second circuit electrodes comprises an electrode surface layer comprising at least one material selected from the group consisting of gold, silver, tin, platinum group metals and indium tin oxide.

17. (Previously presented) A circuit member connection structure according to claim 12, wherein at least one of said first and second circuit members comprises a board surface layer comprising at least one compound selected from the group consisting of silicon nitride, silicone compounds and polyimide resins.

18. (Previously presented) A process for fabrication of a circuit member connection structure, comprising:

a step of situating a circuit connecting material according to claim 1 between a first circuit member having a plurality of first circuit electrodes formed on the main surface of a first circuit board and a second circuit member having a plurality of second circuit electrodes formed on the main surface of a second circuit board, with said first circuit electrode and second circuit electrode opposing each other; and

a step of curing said circuit connecting material by heating and pressing.

19. (Currently amended) A circuit connecting material according to claim 2, wherein in said covered particles, 5 to 60% of the surfaces of said conductive particles are covered by said insulating fine particles, the remaining portions of the conductive particles not being covered by the insulating fine particles.

20. (Currently amended) A circuit connecting material according to claim 3, wherein in said covered particles, 5 to 60% of the surfaces of said conductive particles are covered by said insulating fine particles, the remaining portions of the conductive particles not being covered by the insulating fine particles.

21. (Previously presented) A circuit connecting material according to claim 2, wherein the mean particle size of said insulating fine particles is 1/40 to 1/10 of the mean particle size of said conductive particles.

22. (Previously presented) A circuit connecting material according to claim 3, wherein the mean particle size of said insulating fine particles is 1/40 to 1/10 of the mean particle size of said conductive particles.

23. (Previously presented) A circuit connecting material according to claim 2, wherein said insulating fine particles comprise a polymer of a radical polymerizing substance.

24. (Previously presented) A circuit connecting material according to claim 3, wherein said insulating fine particles comprise a polymer of a radical polymerizing substance.

25. (Previously presented) A circuit connecting material according to claim 2, wherein said adhesive composition comprises a radical polymerizing substance and a curing agent which generates free radicals in response to heating.

26. (Previously presented) A circuit connecting material according to claim 3, wherein said adhesive composition comprises a radical polymerizing substance and a curing agent which generates free radicals in response to heating.

27. (Previously presented) A circuit connecting material according to claim 2, which further comprises a film-forming material comprising a phenoxy resin.

28. (Previously presented) A circuit connecting material according to claim 3, which further comprises a film-forming material comprising a phenoxy resin.

29. (Previously presented) A circuit connecting material according to claim 28, wherein said phenoxy resin has a molecular structure derived from a polycyclic aromatic compound in the molecule.

30. (Previously presented) A circuit connecting material according to claim 27, wherein said phenoxy resin has a molecular structure derived from a polycyclic aromatic compound in the molecule.

31. (Previously presented) A circuit connecting material according to claim 30, wherein said polycyclic aromatic compound is fluorene.

32. (Previously presented) A circuit connecting material according to claim 29, wherein said polycyclic aromatic compound is fluorene.

33. (Previously presented) A circuit connecting material film comprising a circuit connecting material according to claim 2 formed into a film.

34. (Previously presented) A circuit connecting material film comprising a circuit connecting material according to claim 3 formed into a film.

35. (Previously presented) A circuit member connection structure provided with

a first circuit member having a plurality of first circuit electrodes formed on the main surface of a first circuit board,

a second circuit member having a plurality of second circuit electrodes formed on the main surface of a second circuit board,

and a circuit connecting member situated between the main surface of said first circuit board and the main surface of said second circuit board, and connecting said first and second circuit members together with said first and second circuit electrodes opposing each other,

wherein said circuit connecting member comprises a cured circuit connecting material according to claim 2,

and said first circuit electrodes and said second circuit electrodes are electrically connected through said covered particles.

36. (Previously presented) A circuit member connection structure provided with

a first circuit member having a plurality of first circuit electrodes formed on the main surface of a first circuit board,

a second circuit member having a plurality of second circuit electrodes formed on the main surface of a second circuit board,

and a circuit connecting member situated between the main surface of said first circuit board and the main surface of said second circuit board, and connecting said first and second circuit members together with said first and second circuit electrodes opposing each other,

wherein said circuit connecting member comprises a cured circuit connecting material according to claim 3,

and said first circuit electrodes and said second circuit electrodes are electrically connected through said covered particles.

37. (Previously presented) A circuit member connection structure according to claim 36, wherein, when a direct current voltage of 50 V is applied between adjacent circuit electrodes, the resistance value between said adjacent circuit electrodes is $10^9 \Omega$ or greater.

38. (Previously presented) A circuit member connection structure according to claim 35, wherein, when a direct current voltage of 50 V is applied

between adjacent circuit electrodes, the resistance value between said adjacent circuit electrodes is $10^9 \Omega$ or greater.

39. (Previously presented) A circuit member connection structure according to claim 36, wherein at least one of said first and second circuit members is an IC chip.

40. (Previously presented) A circuit member connection structure according to claim 35, wherein at least one of said first and second circuit members is an IC chip.

41. (Previously presented) A circuit member connection structure according to claim 36, wherein the connection resistance between said first circuit electrodes and said second circuit electrodes is no greater than 1Ω .

42. (Previously presented) A circuit member connection structure according to claim 35, wherein the connection resistance between said first circuit electrodes and said second circuit electrodes is no greater than 1Ω .

43. (Previously presented) A circuit member connection structure according to claim 36, wherein at least one of said first and second circuit electrodes comprises an electrode surface layer comprising at least one material selected from the group consisting of gold, silver, tin, platinum group metals and indium tin oxide.

44. (Previously presented) A circuit member connection structure according to claim 35, wherein at least one of said first and second circuit electrodes comprises an electrode surface layer comprising at least one material selected from the group consisting of gold, silver, tin, platinum group metals and indium tin oxide.

45. (Previously presented) A circuit member connection structure according to claim 36, wherein at least one of said first and second circuit members comprises a board surface layer comprising at least one compound selected from the group consisting of silicon nitride, silicone compounds and polyimide resins.

46. (Previously presented) A circuit member connection structure according to claim 35, wherein at least one of said first and second circuit members comprises a board surface layer comprising at least one compound selected from the group consisting of silicon nitride, silicone compounds and polyimide resins.

47. (Previously presented) A process for fabrication of a circuit member connection structure, comprising:

a step of situating a circuit connecting material according to claim 2 between a first circuit member having a plurality of first circuit electrodes formed on the main surface of a first circuit board and a second circuit member having a plurality of second circuit electrodes formed on the main surface of a second circuit board, with said first circuit electrode and second circuit electrode opposing each other; and

a step of curing said circuit connecting material by heating and pressing.

48. (Previously presented) A process for fabrication of a circuit member connection structure, comprising:

a step of situating a circuit connecting material according to claim 3 between a first circuit member having a plurality of first circuit electrodes formed on the main surface of a first circuit board and a second circuit member having a plurality of second circuit electrodes formed on the main surface of a second circuit board, with said first circuit electrode and second circuit electrode opposing each other; and

a step of curing said circuit connecting material by heating and pressing.

49. (New) A circuit connecting material according to claim 1, wherein said conductive particles comprise particles having a nucleus comprising a transition metal and an outer layer of a precious metal.

50. (New) A circuit connecting material according to claim 2, wherein said conductive particles comprise particles having a nucleus of a polymer and an outer layer of a precious metal.